DOCUMENT RESUME

ED 133 963 EC 092 871

TITLE Visual Perception.
INSTITUTION Florida Learning Resources System/CROWN, Jacksonville.
PUB DATE 75
NOTE 19p.

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS Elementary Education; *Identification; *Learning Activities; *Remedial Instruction; Sensory Training; Teacher Developed Materials; *Teaching Techniques; *Visually Handicapped; *Visual Perception

ABSTRACT

Presented is information designed to help teachers identify visual perception difficulties and provide remediation for elementary school students. Sections cover the following topics: diagnosis of visual perception skills in reading; visual perceptual factors and their relation to school success; and definition and activities for figure-ground deficit, form constancy, position in space, spatial relationship, and visual memory. (IM)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

U S DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

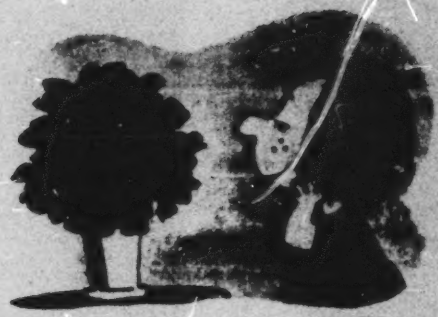
ED133963

VISUAL PERCEPTION

DEVELOPED BY:

FLRS/CROWN
SERVING

CLAY, DUVAL, NASSAU AND ST.JOHNS COUNTIES



MR. HERB A. SANG
SUPERINTENDENT

MRS. JULIA M. WICKERSHAM
DIRECTOR OF EXCEPTIONAL
STUDENT PROGRAM

EC092871

CONTENTS

I. INTRODUCTION 3

II. DIAGNOSIS OF VISUAL PERCEPTION SKILLS IN READING 4

III. VISUAL PERCEPTUAL FACTORS AND THEIR RELATION TO SCHOOL SUCCESS 5

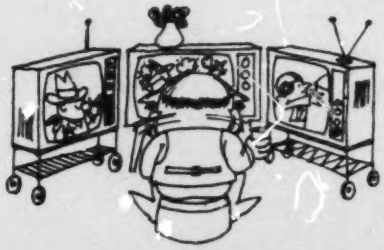
IV. FIGURE-GROUND DEFICIT 6
- A. DEFINITION
- B. ACTIVITIES

V. FORM CONSTANCY 8
- A. DEFINITION
- B. ACTIVITIES

VI. POSITION IN SPACE 10
- A. DEFINITION
- B. ACTIVITIES

VII. SPATIAL RELATIONSHIP 13
- A. DEFINITION
- B. ACTIVITIES
- C. LATERALITY AND DIRECTIONALITY REVERSALS

VIII. VISUAL MEMORY 15
- A. DEFINITION
- B. ACTIVITIES



INFORMATION PACKET/VISUAL PERCEPTION

INTRODUCTION

THE INFORMATION PACKET FOR VISUAL PERCEPTION IS DESIGNED TO HELP TEACHERS DEFINE THE PARTICULAR AREA IN WHICH THEY REQUIRE ASSISTANCE. A DEFINITION OF VISUAL PERCEPTION PROVIDES A BREAKDOWN OF ITS VARIOUS COMPONENTS AND SHOULD ASSIST THE TEACHER IN PINPOINTING A SPECIFIC DEFICIT AREA.

WE REGRET THAT, DUE TO THE MEANS BY WHICH THESE IDEAS WERE COLLECTED, THE ORIGINAL AUTHORS ARE NOT ALWAYS CREDITED AS THIS INFORMATION WAS NOT AVAILABLE TO US.

FLRS/CROWN
JACKSONVILLE, FLORIDA
SUMMER, 1975

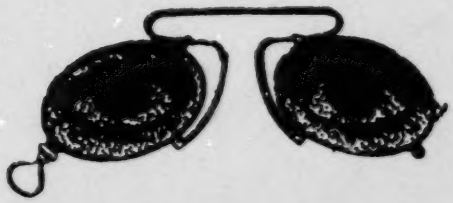
VISUAL PERCEPTION

The following questions will help the teacher to evaluate the pupil:

1. Can the child see likenesses and differences in objects?
2. Can he identify objects in a picture?
3. Can he see likenesses and differences in abstract figures such as circles, squares, and triangles?
4. Does he notice differences in the shapes of words?
5. Does he notice differences in the lengths of words?
6. Does he associate objects with words?
7. Is he able to tell the whole story of a picture?
8. Can he draw inferenced from the significant elements in the picture?
9. Does he see likenesses and differences in words beginning with capital letters and those beginning with small letters?
10. Does he see likenesses and differences in word endings?
11. Does he observe effectively the middle part of words?
12. Does he notice prefixes, suffixes, and root words in word form?
13. Is he able to discriminate among the diacritical markings?[1]

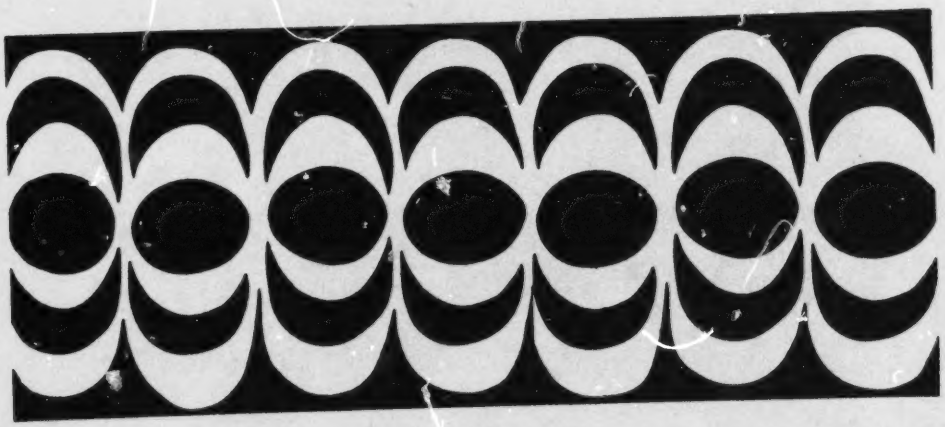
---

[1] Hester, Kathleen, Teaching Every Child to Read, Harper, 1955, p. 64.



VISUAL FACTORS
AND THEIR RELATION TO SCHOOL SUCCESS

VISUAL PERCEPTION	EXPECTED DIFFICULTY
FORM CONSTANCY Ability to recognize and identify like and unlike forms.	Confuses similar words. Has difficulty with all symbols.
FIGURE-GROUND DISCRIMINATION Ability to focus eyes on relevant aspects and to "tune out" irrelevant background.	Has problems with complex words and small or different type, and with noting details in reading. Writing form is poor, especially cursive writing.
POSITION IS SPACE Ability to see the relationship of an object to self.	Sees "b" as "d", difficulty understanding positional terms (in, out, up, etc.)
SPATIAL RELATIONS Ability to recognize symbol size and postion in relation to others.	Confuses such letters and "b" and "d", or "m" with "w". Changes sequence of letters within a word. Poor printing.
VISUAL MEMORY (Imagery) Ability to remember and visualize a previously viewed form or symbol.	Cannot recall newly learned words.



* FIGURE-GROUND DEFICIT

DEFINITION:
The figure is that part of the field of perception that is the center of the observer's attention. When the observer shifts his attention to something else, the new focus of attention becomes the figure, and the previous figure recedes in the ground.

A child bouncing and catching a ball in a playground has his attention directed to the ball, which is the figure in the scene he perceives.

The child would be unable to perceive the exact position of the bouncing ball and have great difficulty in catching it if he did not see it constantly in relation to the ground formed by the surface of the playground and the adjacent objects.

A child who has difficulty with figure-ground perception is one who is unable to distinguish one object from the objects in the background, He cannot fix his attention on one stimulus or target but is distracted by background material or other stimuli. If he is given the task of finding the boy in a farm picture, he may be distracted by the farm house, barn and animals and will find it difficult to pick out the boy.

This ability to distinguish figure from background is necessary for analysis and synthesis of words, phrases and paragraphs. It is important in locating information on a page. It is necessary for independent work. These children need practice in fixing their attention on one stimulus. This is done by various activities begun simply and gradually increased in complexity. Frostig worksheets offer a very complete coverage of the various levels of difficulty in their area.

WHAT IS THE PROBLEM?	ACTIVITIES
Needs practice in finding specific objects among others.	Sorting games: Find all the "red" beads in a box of assorted beads. (beans, etc.) Cut many geometric forms in many colors. Ask the child to sort all the "blue triangles", "red circles", "blue circles", etc. Room games: "Hide the Thimble" type games, sometimes using an obvious "hiding place". Change one small portion of a bulletin board, see who finds the change first. Find all the living things in the room. Find all the red things in the room.
Need to focus on words.	Reading: Discuss pictures. Find the largest boy, the tallest tree, the green apple on the tree. For the child having difficulty maintaining his target focus, provide markers to help frame the word. Cut out the ink frame to help isolate the box on a worksheet that he is doing. Whenever possible, try to reduce the

amount of work on a page. This reduction of stimuli may be his biggest help.
Mount hard-to-learn words on various types of "busy" background (newspaper, wallpaper) to help develop a tolerance for confusing grounds.
Use color - when introducing or reinforcing a word on a chart, make the new word in color.

A POINT OF VIEW

This one could be

a pretty vase,

or two people about to kiss,

or both.

WHAT IS THE PROBLEM?	ACTIVITIES
	and copy names on labels. Remove labels; let child match labels with objects.
Cannot remember words.	Let him make his own picture-flashcards of difficult words.
	Write words on board. Cover with thin or transparent paper. Let child trace the word. Have him return to seat to see if he can reproduce the word.
Cannot recall what has been seen.	Let child go out of the room. Have him tell upon his return if some other child has changed places or moved some object in the room to a different place.

This could be
a man with
a mustache,
or a frog
in front of
a palm tree.

*POSITION IN SPACE

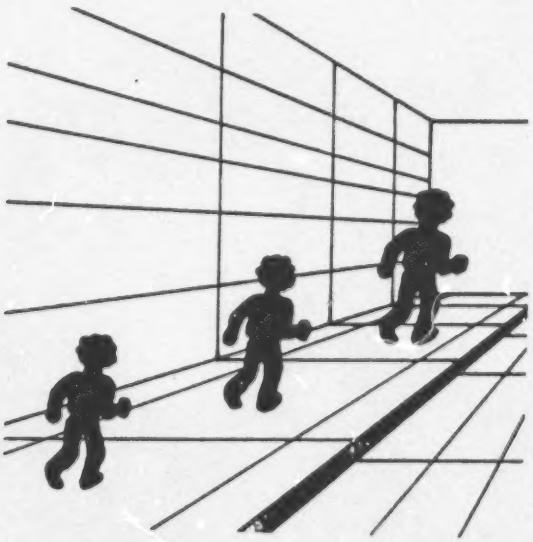
DEFINITION:
Perception of position in space may be defined as perception of the relationship of an object to the observer. (Spatially, a person is always the center of his own world and perceives objects as being behind, before, above, below, or to the side of himself.)

Body Awareness: The accurate perception of objects in relation to the body depends upon accurate perception and knowledge of the body itself.

The child's visual world is distorted.
He is clumsy and hesitant in his movement.
He has difficulty understanding what is meant by the words, in, out, up, down, before, behind, left, right.
He has difficulties with academic tasks:
Letters, word,phrases, numbers, and pictures appear to him distorted and confusing -- He perceives b as d, p as q, on as no, saw as was, 24 as 42, etc.

WHAT IS THE PROBLEM?	ACTIVITIES

Poor body awareness



three boys are exactly

the same size.

AWARENESS OF THE BODY
Have the child lie on a flat surface (floor or table)...Tell him to try to lie still, to stretch and relax, to listen and be aware of his own breathing.

Tell the child to touch various parts of his body as you name them, and then to raise or move the part named--the legs, the arms, hands, fingers, head, etc.

The same exercise can be repeated with the child in different postures: sitting, kneeling, and standing.

LOCATING PARTS OF THE BODY
Have the child locate and count the different parts of the body on himself, on each other, and on a doll....Discuss the function of each part.
note: This exercise applies only to nursery school children, children entering kindergarten and academically retarded children.

USE OF PLAY EQUIPMENT
A child's senses of his body is greatly enhanced if he conquers space and gravity.
Have the child:
a. Climb a ladder or jungle gym.
b. Walk on a rail.
c. Step from one block to another.
d. Ascend a sloping board.
e. Use a slide or teeter-totter.

WHAT IS THE PROBLEM?	ACTIVITIES

Poor body awareness. (cont.)

DIRECTIONAL BODY MOVEMENTS

Children should learn to associate directional body movements with the drawing of lines.

Have the child stand up in front of a chalkboard and draw lines up, down, out, and in. (Teach him that lines drawn up, or out mean away from the body; lines drawn down or in means toward the body. *note*: This is best taught by holding a sheet of cardboard vertically and slowly tilting it to a horizontal position as the child draws up and down--then the child should say what he is doing with each movement: as the cardboard approaches the horizontal position he is drawing and saying "up" as he draws line away from his body and "down" as he draws lines towards his body.

DRAWING HUMAN FIGURES

Draw human figures on the chalkboard, part by part, having the children touching the part on themselves as it is drawn and saying what comes next.

EXAMPLE

Say, "Now I am drawing a head." (Touch your head and have the children touch theirs) "What comes next?" (Touch your neck, say neck and have the children say "neck" and touch their neck.), etc.

The same should be done with each child touching another. (This exercise applies only to nursery school, beginning kindergarten and academically retarded children.)

COMPLETION OF PARTIALLY DRAWN FIGURES

Draw partially completed figures and faces on the chalkboard. Have the children finish the drawings.

Then, have the children draw complete faces and figures.

ASSEMBLING PARTS OF THE BODY

Construct from cardboard pieces representing body parts and facial features. Give the pieces to the children and have them place the pieces in the correct positions on a cardboard oval.

WHAT IS THE PROBLEM?	ACTIVITIES

Poor body awareness. (cont.)

upside down.

RELATIONSHIP OF THE BODY TO OTHER OBJECTS

Have the children do the following exercises involving objects:

- climb on a chair
- jump over a block
- step out of a circle
- walk up stairs
- walk down stairs
- stand behind a chair

etc.

Question: What could you do with before, left and right?

note: Sometimes the children should say what they are doing as they do it, so that word and action and position become firmly associated.

PICTURE

This picture is made up of clearly distinct parts: head, neck, trunk, arms, hands, legs and feet.

Have the children cut these out, then reassemble them.

If they have difficulty, draw a model figure on the chalkboard and have the children practice placing the pieces they have cut out in their proper positions.

Then, they should try to put the pieces together without a guide.

* SPATIAL RELATIONSHIPS

DEFINITON:
Perception of spatial relationships is the ability to perceive the postion of two or more objects in relation to himself and in relation to each other. *EXAMPLE:* A child stringing beads has to perceive the position of the bead and the string in relation to himself as well as the position of the bead and the string in relation to each other.

Difficulties in academic learning

Proper perception of the sequence of letters in a word.
EXAMPLE: A child may read the word string as stirring or spell it sitrng.

In solving arithmatic problems, he may be unable to remember the sequence of processes involved in problems of long division or fail to perceive the relative position of the digits in problems of multiplication.

Difficulties with other tasks

model making
map reading
understanding graphs
learning systems of measurement

Both at home and at school, children can be helped to make simple models, fashion small objects from wood or other materials, build according to a pattern, read maps, work in the yard on simple activities that involve a sequence of actions.

WHAT IS THE PROBLEM?	ACTIVITIES
Has problems noting positions of objects in relation to each other.	EXERCISES WITH 3 DIMENSIONAL OBJECTS Positions: Before the children attempt paper and pencil exercises in spatial relationships, they should have practice in exercises involving the positions of two objects that are three-dimensional in relation to each other. *EXAMPLE:* Give each child a red block and a green one. Then say, "I want everybody to put the green block in front of the red block. Now, put the red on top of the green block. Now, put the red block to the left of the green block. Now put the green block behind the red block." *NOTE:* Colored marbles or colored pegs can be similarly juxtaposed (placed together, put side by side or beside)in a marble or peg board.

* SPATIAL RELATIONSHIPS

LATERALITY AND DIRECTIONALITY
Horizontal Reversals

DEFINITION:
A child who reverses or rotates more frequently than most children has confusion in spatial positions and will have a good deal of difficulty with reversals. He can see no difference between the letters "b" and "d" and will write the same letter for both. "Was and"saw" will also be the same or the confusion may come when he begins to transfer from visual to written. Whatever the underlying causes, he needs special help.

It will be difficult for a child who has difficulty with "directional" or reversing to do well in spelling. He will probably also experience problems in reading and writing because things do not look the same to him as they do to others. When attaching place values in arithmetic, it is doubtful that he will learn the "ten's place" if directionality or reversing is a problem to him. He will think of this numeral "27" and "72".

WHAT IS THE PROBLEM?	ACTIVITIES
Cannot differentiate spatial position of letters.	Cut letters out of sandpaper, velvet or other materials that will be interesting for a child to feel and give him opportunities to trace over the letters with fingers. Have child make or form letters with fingers in the sand, Use stones or rice and have child form letters. After he is able to form them, let him paste them on a sheet of peper which he can keep for a constant referral. Trace or write confusing letters. Allow a child to use typewriter. Looking at the letter on the keyboard and seeing what it becomes when typed will help him. Underline the first letter in a word with red crayon. Circle it for variation. Cut first part of letter in one color (l) and the second part in another color (o) Put together. ——→ b Child can see that the stick comes first because of the added help of it being a different color.

*VISUAL MEMORY

DEFINITION:
It is important that a child be able to revisualize and be able to keep the image in his mind of something previously seen. The ability to revisualize or recall what has been seen previously is good training for good memory development.

Good visual memory is important for the recall of word forms, letters and words. This visual memory is necessary if a child is to learn symbols and is to learn to read. Revisualization or visual memory affects numbers, but writing is interfered with more often because of the complexity of words and the sequence of letters to be remembered. Recall of non-verbal stimuli may be impaired also, in which case the stimuli may be objects or people which the child with poor visual memory may find difficult to recall. This child needs many opportunities provided for him to have to revisualize and to make comparisons of objects, letters and symbols.

WHAT IS THE PROBLEM?	ACTIVITIES
Cannot keep an accurate image of what he has seen.	Let him look at himself in the mirror. Let him examine other children. Draw a picture of a person. Notice what he has left out -- where his visual memory has failed. Let him return to mirror and draw person again.
	Draw a simple form or pattern on the blackboard while child watches. Erase or cover it and have him draw it.
	Expose a picture from a catalog or a magazine which contains a number of familiar items. Cover it and have child tell as many things as he recalls.
	Expose simple pattern of lines for a few seconds which can be recognized as a box, ball, tents, etc. Remove and have the child draw from memory.
	Send the child on an errand. Have him draw a map of the route he took. Also use the routes to and from school, church.

NAME: Food Chain

THIS GAME WAS FOUND EFFECTIVE IN A CLASS OF:

Elementary EMR and SLD students

IT WAS CONTRIBUTED BY:

Dottie Arthur, Dunnellon Elementary, Marion County

OBJECTIVES:

To increase the students visual memory and teach him how plants and animals are linked together by their need for food.

MATERIALS NEEDED:

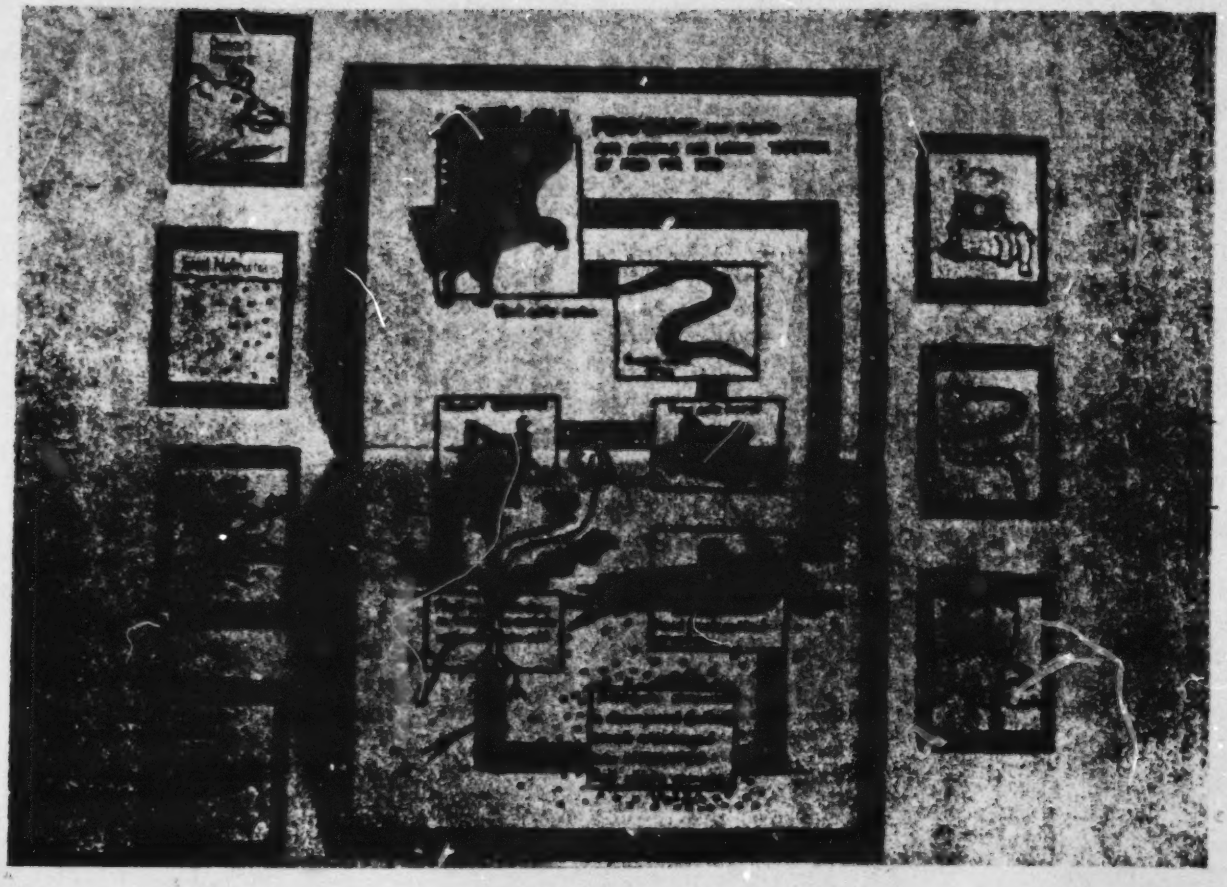
Construction paper, felt tip markers or crayons.

DIRECTIONS FOR MAKING:

Draw the gameboard illustrated on the following page on a sheet of construction paper (12"x18"). Cut thirty-five 3" x 4" cards out of construction paper. Illustrate the following on five cards for each; dead hawk, soil nitrates, plants, insect, frog, snake, and hawk. Laminate game board and cards for durability.

PROCEDURES FOR USE:

Shuffle cards and deal seven cards to each player, one at a time. Place remaining cards face down on the table. Players may study the game board, then place it face down on the table. The first player draws card off top of deck. He may keep the card or put it face up next to deck. If he should keep the card he must discard one from his hand. (Players should always have 7 cards). The next player may either pick up the card lying face up or pick one from the deck. He must then put one card in the discard pile. The play continues until a player has one of each member of the food chain. He says "Food Chain" and the play stops while this player arranges his cards in a food chain circle on the table. The player turns the gameboard face up to check if he has his cards in the right order. If the player is correct, he is the winner; if he is not correct he is out of the game. The play continues until someone else says "Food Chain" and wins.



NAME: Visual Memory and Sequencing Beads

THIS ACTIVITY WAS FOUND EFFECTIVE IN A CLASS OF:

Elementary SLD students

IT WAS CONTRIBUTED BY:

Randee Winterbottom, Williston Elementary, Levy County

OBJECTIVES:

Student will be able to recall and reproduce patterns of various lengths after being shown a stimulus card for ten seconds.

MATERIALS NEEDED:

Mueller's rigatoni noodles (a macaroni product), blue, red, yellow, and green permanent markers, several foot lengths of black string and white construction paper cut into 6" x 2" lengths (approximately 20).

DIRECTIONS FOR MAKING:

Color with permanent markers about forty rigatoni noodles (ten green, ten yellow, ten red, and ten blue). On the white cards draw and color small rectangles the likeness of the rigatoni noodles. Start off with cards having three noodle representations building up to cards with seven noodle representations. Connect these representations with a black marker to make them look like they are strung together.

PROCEDURES FOR USE

Place several colored noodles and a string in front of each student. Show the stimulus card for ten seconds and take it away. The student must then make the exact pattern with his noodles and string.